

MICROPOMA NILOTICUM (DEL.) LINDB. (MUSCI)

WITH CORM-LIKE STEM BASES

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During excursions by the authors, aimed at a study of the algal-moss association in various parts of Egypt, six samples of the moss Micropoma niloticum (Funariaceae) were collected. This moss is not common but is wide spread on muddy banks of the Nile, irrigation canals, and fields in late winter and early spring months (see : Delile, 1812; Imam and Ghabbour, 1972; El-Saadawi and Abou El-Kheir, 1973; Refai, 1985). It is also known from Ghazza Strip (El-Saadawi, 1972). It grows usually as pure stands in a pH range of 6.5 to 8 (Darwish, 1984) sometimes in association with Riccia sp. (Hepaticae). Sporophytes readily develop and reproduction is mainly by spores; no gemmae have, hitherto, been found.

One of the six samples was collected from a canal bank at El-Ghareeb village in El-Fayum region; about 80 km south west of Cairo. The stems of all gametophores of this sample arose from orange-brown swollen corm-like bases measuring about 1 mm in length and 0.6 mm in width (Fig. 1 A). "Corms" of fruiting individuals were slightly smaller in size (Fig. 1 B). This is a peculiarity that was not met with in other sites. Thus the bases of the stems of the gametophores of M. niloticum, and indeed of any other moss species, collected from all other sites in Egypt are only slightly thicker than the aerial stems; being about 0.1 - 0.2 mm thick. As far as we are aware there is no record in the literature of such structures. It is worth mentioning that this is the only sample of M. niloticum that grew on a calcareous substratum. And the following 19 algal taxa were met with under the moss plants in this sample.

Bacillariophycophyta

Amphora coffaeiformis Ag. borealis (Kz.) Cl.

Cocconeis placentula E. euglypta (E.) Grun.

Cyclotella meueghiniana rectangulata Grun.

Denticula tenuis Kz. genuina Grun.

Diploneis oblongella (Naeg.) A. Cl. v. lapponica.

Fragilaria bidens Heib.

F. pinnata E. genuina (Grun.) May. v. subrotunda

Gomphonema olivaceum Kz. tenellum (Kz.) Cl.

Nitzschia fasciculata Grun.

N. palea v. fonticola (Grun.) V.H.

N. vitrea Norman genuina Grun.

Rhopalodia gibba (E.) O. M.

R. gibberula (E.) O. M. musculus (Kz.) A. Cl.

R. gibberula (E.) O. M. producta (Grun.) A. Cl.

Chlorophycophyta

Chlamydomonas steinii Gorosch.

Chlorococcum sp.

Coelastrum naegeli proboscideum Bohlin.

Cyanophycophyta

Chroococcus turgidus (Kutz.) Næg.

Oscillatoria irrigua Kutz.

Whether the formation of the swollen stem bases of Micropoma gametophores is promoted by the calcareous substratum or by any of the co-existing algal taxa or by both is not known. Moss samples are deposited in CAIA.

References

- Darwish, M.H., 1984. Studies on algae and mosses occurring together in their natural habitats. M. Sc. Thesis, Girls College, Ain Shams University, Cairo.
- Delile, R., 1812. Flora Aegypticae Illustratio Descriptio de L'Egypte. His. Nat., Paris. 2 : 289.
- El-Saadawi, W. E., 1972. Illustrated description of Micropoma niloticum (Del.) Lindb. Proc. Egypt. Acad. Sci. 25 : 217-219.
- El-Saadawi, W. E. and Abou El-Kheir, W. S., 1973. On some Egyptian mosses and the algal flora in their habitats. Proc. Egypt. Acad. Sci. 26 : 125-136.
- Imam, M. and Ghabbour, S. I., 1972. A contribution to the moss flora of Egypt. Bot. Notiser, 125 (4) : 518-522.
- Refai, M. S., 1985. Studies in the bryoflora of the Nile Delta. M. Sc. Thesis, Fac. of Sci., Ain Shams University, Cairo.

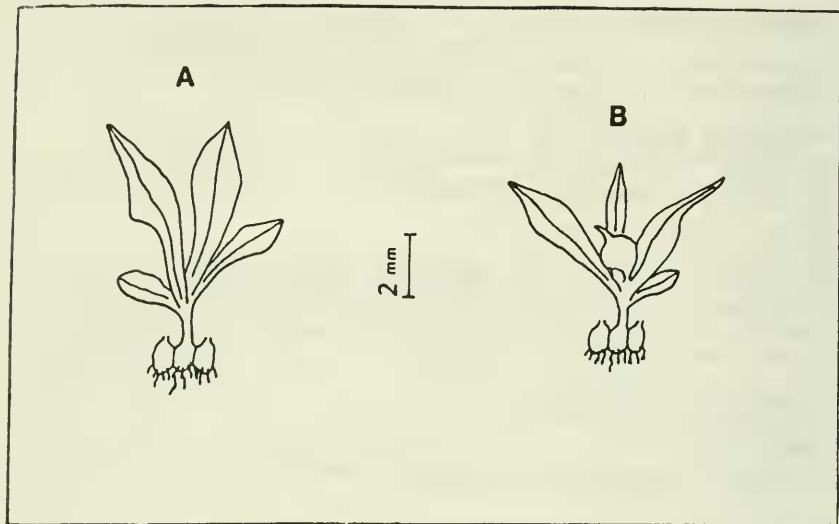


Fig. 1. Micropoma niloticum with corm-like stem bases.
A. Gametophyte. B. Gametophyte bearing sporophyte.